



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Robert Ulrich et al.

Application No.: 09/853,650

Filed: May 14, 2001

For: GRAPHICAL USER INTERFACE  
HAVING SOUND EFFECTS FOR  
OPERATING CONTROL  
ELEMENTS AND DRAGGING  
OBJECTS

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)  
) Group Art Unit: 2174

)  
) Examiner: SAJEDA  
MUHEBBULLAH

)  
) Appeal No.: \_\_\_\_\_

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Primary Examiner dated September 16, 2008 finally rejecting claims 28, 32, 41, 43, 53-95, which are reproduced as the Claims Appendix of this brief.

- ☐ A check covering the ☐ \$ 270 ☐ \$ 540 Government fee is filed herewith.
- ☒ Charge ☐ \$ 270 ☒ \$ 540 to Credit Card. Form PTO-2038 is attached.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

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I. Real Party in Interest

The present application is assigned to Apple Inc.. Apple Inc. is the real party in interest, and is the assignee of Application No. 09/853,650.

II. Related Appeals and Interferences

The Appellant's legal representative, or assignee, does not know of any other appeal or interferences which will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of Claims

The application was originally filed with 28 claims. However, claims 1-27 were canceled, and claims 29-56 were added by preliminary amendment filed with the application on May 14, 2001. By the Amendment of July 15, 2004, claims 57-79 were added, and claims 29-31, 33-40, 42 and 44-52 were canceled. By the Amendment of August 31, 2006, claims 80-88 were added. By the Amendment of May 1, 2007, claims 89-91 were added. By the Amendment of October 31, 2007, claims 92-95 were added. Claims 28, 32, 41, 43 and 53-95 remain pending in the application, all of which appear to be finally rejected<sup>1</sup>. However, page 15 of the September 16, 2008 final Office Action indicated that claims 55 and 56 are allowed; and claims 66, 67, 78 and 79 contain allowable subject matter. Claims 28, 32, 41, 43 and 53-95 are being appealed.

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<sup>1</sup> While the September 16, 2008 Office Action Summary sheet imprecisely lists only claims 28, 32, 41, 43 and 53 as being rejected; as best understood from paragraph 4, page 2 of the final Office Action, it appears the Examiner intended to reject other claims as well. However, the record is unclear on this point (see footnote 2).

IV. Status of Amendments

No amendments were filed after final rejection.

V. Summary of Claimed Subject Matter

As recited in claim 28, a computer-readable medium {e.g., element 360 of Fig. 4B; lines 28 and 29, page 6} having at least one data structure is disclosed for use during execution of a program by a computer {e.g., Fig. 4A} from which a sound effect can be produced encoded thereon {e.g., lines 1-4, page 7}. Such a data structure comprises: a variable associated with gain of an identified sound {e.g., line 3, page 10}; a variable associated with delay of the identified sound {e.g., line 3, page 10}; a variable associated with pitch of the identified sound to vary a produced sound effect {e.g., line 4, page 10}; and a separately recorded sound effect, wherein said recorded sound effect has at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying {e.g., lines 22-25, page 9}, at least one of which can be adjusted based on at least one of the variables associated with gain, delay or pitch of an identified sound to vary the produced sound effect {e.g., lines 1-4, page 10}, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 32, a method is disclosed {e.g., lines 6-8, page 5} for providing a sound effect corresponding to movement of an object drawn on a graphical user interface of a computer system {e.g., Fig. 7; lines 3-5, page 9}. Such a method comprises steps of: drawing said object in a first display position of a display space controlled by said graphical user interface {e.g., Fig. 7; lines 12-14, page 9}; receiving a first indication of movement of said object, the movement being on said graphical user interface {e.g., Fig. 6A; lines 14-15, page 9}; retrieving a sustain sound segment in response to said first indication {e.g., line 16, page 9}; producing said sustain sound segment {e.g., Fig. 6A; lines 16 and 17, page 9}; receiving a second indication that the movement of said object on said graphical user interface has terminated {e.g., Fig. 6A; lines 18 and 19, page 9}; terminating

said sustain sound segment in response to said second indication {e.g., Fig. 6A; lines 28 and 29, page 9}; panning said sustain sound segment between speakers as said object moves {e.g., line 17, page 10}; and wherein said step of panning said sustain sound segment between speakers further comprises a step of: varying a volume between said speakers as compared to a recorded volume {e.g., lines 15 and 16, page 10}.

As recited in claim 41, a computer system is disclosed {e.g., Fig. 4A; lines 23-28, page 5} with a display {e.g., element 22 or 24} and a sound effect system {e.g., elements 26 and 28; lines 12-17, page 6}. Such a computer system comprises: an input device {e.g., element 20 of Fig. 4A} for controlling movement of a cursor on said display {e.g., element 22 or 24}, wherein said input device generates a cursor output in response to said cursor being positioned over a control element {e.g., line 15, page 9}; a graphical user interface for rendering an object on said display at a first display position {e.g., lines 5-7, page 6}; a speaker for producing a sound effect associated with movement of said object {e.g., element 26 or 28; line 12, page 6}; a storage device for storing said sound effect {e.g., element 360; lines 3 and 4, page 7}; and a processor {e.g., element 340} for controlling the speaker {e.g., element 26 or 28} to produce said sound effect in response to movement of the object from the first display position using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary the produced sound effect {e.g., lines 1-4, page 10}, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 43, a computer system is disclosed {e.g., Fig. 4A; lines 23-28, page 5} with a display {e.g., element 22 or 24} and a sound effect system {e.g., elements 26 and 28; lines 12-17, page 6}. Such a computer system comprises: an input device {e.g., element 20 of Fig. 4A} for controlling movement of a cursor on said display {e.g., element 22 or 24}, wherein said input device generates a cursor output in response to said cursor being positioned over a control element {e.g., line 15, page 9}; a graphical user interface for rendering an object on said display at a first display position {e.g., lines 5-7, page 6}; first and second speakers for producing

a sound effect associated with movement of said object {e.g., elements 26 and 28; line 12, page 6}; a storage device for storing said sound effect {e.g., element 360; lines 3 and 4, page 7}; a processor {e.g., element 340} for controlling the speaker {e.g., element 26 or 28} to produce said sound effect in response to movement of the object from the first display position using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary the produced sound effect {e.g., lines 1-4, page 10}; means {e.g., element 16 of Fig. 4A} for panning said sound effect between said first speaker {e.g., element 26} and said second speaker {e.g., element 28} in response to movement of the object {e.g., Fig. 8; line 17, page 10}; and means {e.g., Fig. 8} for varying a volume between said first speaker {e.g., element 26} and said second speaker {e.g., element 28} as compared to a recorded volume {e.g., lines 15-16, page 10}, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 53, in a graphical user interface {e.g., line 9, page 9}, a method is disclosed {e.g., lines 6-8, page 5} for providing sound effects comprising the steps of: displaying an object in a first display state, said first display state having no sound effect associated with it {Fig. 7; lines 12-14, page 9}; identifying a sound effect using a state table, said sound effect being associated with a transition from a first display state to a second display state {e.g., Fig. 5; lines 23-25, page 7; and lines 26 and 27, page 11}; varying an output characteristic of said sound effect using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of the identified sound effect to vary the output characteristic {e.g., lines 1-4, page 10}; and reproducing said sound effect using said varied output characteristic, wherein the pitch of the identified sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 55, in a graphical user interface {e.g., line 9, page 9}, a method is disclosed {e.g., lines 6-8, page 5} for providing sound effects comprising

the steps of: displaying an object in a first display state {Fig. 7; lines 12-14, page 9}; identifying a sound effect using a state table, said sound effect being associated with a transition from a first display state to a second display state {e.g., Fig. 5; lines 23-25, page 7; and lines 26 and 27, page 11}; varying a frequency characteristic of said sound effect {e.g., Fig. 9; lines 14-16, page 11}; and reproducing said sound effect using said varied frequency characteristic {e.g., lines 16-18, page 11}; wherein said frequency is selected from within an envelope of about plus or minus 2.5 percent of an original, recorded frequency {e.g., Fig. 9; lines 18-20, page 11}.

As recited in claim 57, a method is disclosed {e.g., lines 6-8, page 5} for providing a sound effect corresponding to movement of an object drawn on a graphical user interface of a computer system (e.g., Fig. 7). Such a method comprises steps of: drawing said object in a first display position of a display space controlled by said graphical user interface {e.g., Fig. 7; lines 12-14, page 9}; receiving an indication of movement of said object, the movement being on said graphical user interface {e.g., Fig. 6A; lines 14-15, page 9}; and producing a plurality of sound segments resulting from the object's movement on said graphical user interface {e.g., lines 22-25, page 9}, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments {e.g., lines 1-4, page 10}, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 68, a computer system is disclosed {e.g., Fig. 4A; lines 23-28, page 5} with a display {e.g., element 22 or 24} and a sound effect system {e.g., elements 26 and 28; lines 12-17, page 6}. Such a computer system comprises: an input device {e.g., element 20 of Fig. 4A} for controlling movement of a cursor on said display {e.g., elements 22 or 24}, wherein said input device generates a cursor output in response to said cursor being positioned over a control element {e.g., line 15, page 9}; a graphical user interface for rendering an object on said display at a first display position {e.g., lines 5-7, page 6}; a speaker for producing a sound effect associated with movement of said object {e.g., element 26 or 28; line 12, page 6}; a

storage device for storing said sound effect {e.g., element 360; lines 3 and 4, page 7}; and a processor {e.g., element 340} for controlling the speaker {e.g., element 26 or 28} to produce said sound effect in response to movement of the object from the first display position {e.g., lines 22-25, page 9}, the sound effect having a plurality of sound segments that are each associated with the object's movement on said graphical user interface, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments {e.g., lines 1-4, page 10}, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 80, a computer-readable medium {e.g., element 360 of Fig. 4B; lines 28 and 29, page 6} having at least one data structure is disclosed for use during execution of a program by a computer {e.g., Fig. 4A} from which a sound effect can be produced encoded thereon {e.g., lines 1-4, page 7}. Such a data structure comprises: a variable associated with gain of an identified sound to vary a produced sound effect {e.g., line 22, page 8; lines 3 and 4, page 10}, wherein at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect {e.g., Fig. 6A; lines 22-29, page 9}, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 83, a computer-readable medium {e.g., element 360 of Fig. 4B; lines 28 and 29, page 6} having at least one data structure is disclosed for use during execution of a program by a computer {e.g., Fig. 4A} from which a sound effect can be produced encoded thereon {e.g., lines 1-4, page 7}. Such a data structure comprises: a variable associated with delay of an identified sound to vary a produced sound effect {e.g., line 22, page 8; lines 3 and 4, page 10}, wherein at least

one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect {e.g., Fig. 6A; lines 22-29, page 9}, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 86, a computer-readable medium {e.g., element 360 of Fig. 4B; lines 28 and 29, page 6} having at least one data structure is disclosed for use during execution of a program by a computer {e.g., Fig. 4A} from which a sound effect can be produced encoded thereon {e.g., lines 1-4, page 7}. Such a data structure comprises: a variable associated with pitch of an identified sound to vary a produced sound effect {e.g., line 23, page 8; line 4, page 10}, wherein at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect {e.g., Fig. 6A; lines 22-29, page 9}, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 89, a method {e.g., lines 6-8, page 5} of providing user feedback in a graphical user interface for a computer {e.g., Fig. 4A} is disclosed. Such a method comprises the following steps: in response to a user action that is performed with respect to an element of the graphical user interface, changing the display of said element from a first state to a second state {e.g., Fig. 5; lines 18-23, page 7}; identifying a stored sound effect that is associated with a transition from said first state to said second state {e.g., Fig. 5; lines 24 and 25, page 7}; and reproducing said identified sound effect in conjunction with said change in display states of said element {e.g., Fig. 6; lines 23-25, page 8}, wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be



selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

As recited in claim 92, a computer-readable medium {e.g., element 360 of Fig. 4B; lines 28 and 29, page 6} containing programming code is disclosed for providing user feedback in a graphical user interface for a computer {e.g., Fig. 4A}. Such a computer readable medium when executed implements procedures comprising: in response to a user action that is performed with respect to an element of the graphical user interface, changing the display of said element from a first state to a second state {e.g., Fig. 5; lines 18-23, page 7}; identifying a stored sound effect that is associated with a transition from said first state to said second state {e.g., Fig. 5; lines 24 and 25, page 7}; and reproducing said identified sound effect in conjunction with said change in display states of said element {e.g., Fig. 6; lines 23-25, page 8}, wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope {e.g., lines 27-29, page 11}.

#### VI. Grounds of Rejection to be Reviewed on Appeal

The final Office Action presents the following grounds of rejection to be reviewed on appeal:

A. Claims 28, 41, 43 and 53-95 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter regarded as the invention;

B. Claim 32 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,374,924 (McKiel, Jr.);

C. Claims 89 and 92 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,767,835 (Obbink et al.);

D. Claims 28, 80-88 and 95 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,359,712 (Cohen et al.) in view of U.S. Patent 5,754,094 (Frushour);

E. Claims 41 and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,374,924 (McKiel, Jr.) in view of U.S. Patent 5,754,094 (Frushour);

F. Claims 53, 54, 57, 58 and 61-64 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,049,328 (Vanderheiden) in view of U.S. Patent 5,754,094 (Frushour);

G. Claims 59, 60, 65 and 68-77 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,049,328 (Vanderheiden) in view of U.S. Patent 5,754,094 (Frushour), and further in view of U.S. Patent 5,374,924 (McKiel, Jr.); and

H. Claims 90, 91, 93 and 94 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,767,835 (Obbink et al.) in view of U.S. Patent 5,754,094 (Frushour).

## VII. Argument

A. Claims 28, 41, 43 and 53-95 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter regarded as the invention

The Examiner appears to be newly asserting that claims 28, 41, 43 and 53-95 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Appellants respectfully traverse the rejection.

With respect to claims 28, 41, 43, 53, 54 and 57-95, while the Examiner asserts that the term "more likely" is not defined (paragraph 5, page 2 of the final Office Action), Appellants respectfully submit that the specification does lend a standard for ascertaining the requisite degree. For example, Appellants have disclosed that according to one exemplary embodiment of the present invention, selection of a frequency from within the envelope is weighted such that *frequencies closer to the originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope* (e.g., lines 27-29, page 11). Appellants have supported this disclosure with an exemplary weighting function as illustrated in FIG. 9 (e.g., lines 1 and 2, page 12), and have clarified that for this exemplary weighting function, "it can be seen in the Figure that *the curve is weighted*

such that fully half of the randomly selected frequency variations are within one quarter of the total envelope in this exemplary weighting" (e.g., lines 4-6, page 12). While the rejection characterizes the term "more likely" as a "relative term", the claims themselves define the relationship that the frequencies closer to an originally recorded frequency have a higher weighting than the frequencies that are further away toward the edges of the envelope. The Examiner clearly appears to impermissibly dismiss as being indefinite the validly claimed feature that "the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in independent claim 28, and as similarly recited in independent claims 32, 41, 43, 53, 57, 68, 80, 83, 86, 89 and 92.

Regarding independent claim 55 and dependent claim 56, the Examiner appears to erroneously allege a rejection under 35 U.S.C. §112, second paragraph, along with all other pending claims<sup>2</sup>. However, Appellants respectfully submit that independent claim 55 and dependent claim 56 do not recite the alleged "more likely" phrase; and furthermore, are separately indicated as being allowed in paragraph 16 of the final Office Action.

At least for these reasons, Appellants respectfully submit that the claims at issue do particularly point out and distinctly claim the subject matter as supported by the specification.

In view of the foregoing, claims 28, 41, 43 and 53-95 are not indefinite as the Examiner asserts. Accordingly, the rejection should be reversed.

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<sup>2</sup> Paragraph 4, page 2 of the final Office Action appears to imprecisely list claims 28, 41, 43 and 53-95 as allegedly being rejected under 35 U.S.C. §112, second paragraph. The Examiner appears to have erroneously included claims 55 and 56 in paragraph 4, because paragraph 5 of the final Office Action does not substantiate the rejection specifically for claims 55 and 56. Furthermore, paragraph 16 of the final Office Action has clearly indicated that claims 55 and 56 are allowed.

B. Claim 32 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,374,924 (McKiel, Jr.)

In paragraph 7, page 3 of the final Office Action, the Examiner appears to be asserting that claim 32 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,374,924 (McKiel, Jr.). Appellants respectfully traverse the rejection.

The rejection of claim 32 under 35 U.S.C. §102(e) based on the McKiel, Jr. patent cannot stand because the McKiel, Jr. patent fails to either expressly or inherently disclose a number of features recited in independent claim 32.

The McKiel, Jr. patent does not relate to *varying a volume between speakers as compared to a recorded volume*, as recited in Appellants' claim 32. Rather, the McKiel, Jr. disclosure as relied upon by the Examiner merely describes the produced effect of the pointer approaching the left boundary as "the sounds representing the client area come more and more exclusively from the left audio channel" (col. 2, lines 32-35). The sounds which "come more and more exclusively from the left audio channel" as relied upon by the Examiner do not suggest a recorded volume from which the produced volume is varied. As Appellants have claimed, the produced of volume is varied between speakers "*as compared to a recorded volume*," as recited in Appellants' claim 32.

Further, the McKiel, Jr. patent does not disclose a method for providing a sound effect corresponding to *movement of an object drawn on a graphical user interface* of a computer system, as recited in Appellants' claim 32. Rather, at best, the McKiel, Jr. patent discloses a "*pointer approaches the left boundary* of the client area" (col. 2, lines 32 and 33). The McKiel, Jr. disclosure as relied upon by the Examiner relates to a pointer movement, but not a movement of an object drawn on a graphical user interface.

For the foregoing reasons, the McKiel, Jr. patent fails to disclose every feature recited in independent claim 32.

C. Claims 89 and 92 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,767,835 (Obbink et al.)

In paragraph 8, page 4 of the final Office Action, claims 89 and 92 stand rejected as being anticipated by U.S. Patent No. 5,767,835 (Obbink et al.). Appellants respectfully traverse the rejection.

The rejection of claims 89 and 92 under 35 U.S.C. §102(e) based on the Obbink et al. patent cannot stand because the Obbink et al. patent fails to either expressly or inherently disclose a number of features recited in independent claims 89 and 92.

The Obbink et al. patent does not disclose wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope, as recited in claims 89 and 92. Bridging pages 2 and 33 of the March 4, 2008 Office Action, the Examiner relied on the button 4 as shown in Figs 3A-F of the Obbink et al. patent and the accompanying audio associated with each button (col. 7, lines 4-15; col. 8, lines 9-20) to allege that the Obbink et al. patent taught the features recited in the previously presented versions of claims 89 and 92. In response, Appellants have on page 20 of the June 4, 2008 Amendment succinctly argued that the button 4 and the accompanying audio of the Obbink et al. patent does not relate to Appellants' *pitch of a reproduced sound effect being selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected* than frequencies toward the edges of the envelope, as recited in claims 89 and 92. However, without substantively responding to the Appellants' arguments with respect to amended claims 89 and 92, on page 4 of the final Office Action, the Examiner chose to maintain her reliance on the button 4 as shown in Figs 3A-F of the Obbink et al. patent and the accompanying audio associated with each button (col. 7, lines 4-15; col. 8, lines 9-20). The Examiner was not responsive to the Appellants' remarks as they related specifically to the amended features recited in claims 89 and 92.

For the foregoing reasons, the Obbink et al. patent fails to disclose every feature recited in independent claims 89 and 92.

D. Claims 28, 80-88 and 95 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,359,712 (Cohen et al.) in view of U.S. Patent 5,754,094 (Frushour)

In paragraph 10, pages 4 and 5 of the final Office Action, claims 28, 80-88 and 95 stand rejected as being unpatentable over U.S. Patent No. 5,359,712 (Cohen et al.) in view of U.S. Patent No. 5,754,094 (Frushour). Appellants respectfully traverse the rejection. The Examiner has failed to establish a prima facie case of obviousness in rejecting claims 28, 80-88 and 95 based on the Cohen et al. patent and the Frushour patent.

Regarding the Cohen et al. patent, the Examiner cites a disclosure in the Cohen et al. patent of an audio transition in which audio signals of two streams are modified. However, the disclosure of two streams that are modified in the Cohen et al. patent would not have taught or suggested at least "wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 28. Claims 80, 83 and 86 similarly recite "wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope."

The Frushour patent is relied upon by the Examiner to show features that were admitted to be lacking from the Cohen et al. patent. However, as relied upon by the Examiner, the Frushour patent merely discloses a sound generating apparatus 10 as shown in Fig. 2, and the manner in which each subset of sounds is selected and generated (col. 5, lines 45-61). The Frushour patent would not have taught or suggested at least "wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 28.

For the foregoing reasons, the Examiner has not established a prima facie case of obviousness in rejecting independent claims 28, 80, 83 and 86.

E. Claims 41 and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,374,924 (McKiel, Jr.) in view of U.S. Patent 5,754,094 (Frushour)

In paragraph 11, pages 6-8 of the final Office Action, independent claims 41 and 43 stand rejected as being unpatentable over U.S. Patent No. 5,374,924 (McKiel, Jr.) in view of the Frushour patent. Appellants respectfully traverse the rejection. The Examiner has failed to establish a prima facie case of obviousness in rejecting claims 41 and 43 based on the McKiel, Jr. patent and the Frushour patent.

Regarding the McKiel patent, on page 6 of the final Office Action, the Examiner admits that "McKiel does not explicitly teach using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary the produced sound effect." Due to the lack of teaching, Appellants further submit that the McKiel patent would not have taught or suggested at least "wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claims 41 and 43.

The Frushour patent is relied upon by the Examiner to show features that were admitted to be lacking from the McKiel patent. However, as relied upon by the Examiner, the Frushour patent merely discloses a sound generating apparatus 10 as shown in Fig. 2, and the manner in which each subset of sounds is selected and generated (col. 5, lines 45-61). The Frushour patent would not have taught or suggested at least "wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claims 41 and 43.

For the foregoing reasons, the Examiner has not established a prima facie case of obviousness in rejecting independent claims 41 and 43.

F. Claims 53, 54, 57, 58 and 61-64 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,049,328 (Vanderheiden) in view of U.S. Patent 5,754,094 (Frushour)

In paragraph 12, pages 8 -10 of the final Office Action, claims 53, 54, 57, 58 and 61-64 stand rejected as being unpatentable over U.S. Patent No. 6,049,328 (Vanderheiden) in view of the Frushour patent. Appellants respectfully traverse the rejection. The Examiner has failed to establish a prima facie case of obviousness in rejecting claims 53, 54, 57, 58 and 61-64 based on the Vanderheiden patent and the Frushour patent.

Regarding the Vanderheiden patent, on page 8 of the final Office Action, the Examiner admits "Vanderheiden does not expressly teach using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of the identified sound effect to vary the output characteristic and reproducing said sound effect using said varied output characteristic." Due to this lack of teaching, Appellants further submit that the Vanderheiden patent would not have taught or suggested at least "reproducing said sound effect using said varied output characteristic, wherein the pitch of the identified sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 53, and as similarly recited in claim 57.

The Frushour patent is relied upon by the Examiner to show features that were admitted to be lacking from the Vanderheiden patent. However, as relied upon by the Examiner, the Frushour patent merely discloses a sound generating apparatus 10 as shown in Fig. 2, and the manner in which each subset of sounds is selected and generated (col. 5, lines 45-61). The Frushour patent would not have taught or suggested at least "reproducing said sound effect using said varied output characteristic, wherein the pitch of the identified sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 53, and as similarly recited in claim 57.



For the foregoing reasons, the Examiner has not established a prima facie case of obviousness in rejecting independent claims 53 and 57.

G. Claims 59, 60, 65 and 68-77 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,049,328 (Vanderheiden) in view of U.S. Patent 5,754,094 (Frushour), and further in view of U.S. Patent 5,374,924 (McKiel, Jr.)

In paragraph 13, pages 10-14 of the final Office Action, claims 59, 60, 65 and 68-77 stand rejected as being unpatentable over the Vanderheiden patent, in view of the Frushour patent, and further in view of the McKiel, Jr. patent. Appellants respectfully traverse the rejection. The Examiner has failed to establish a prima facie case of obviousness in rejecting claims 59, 60, 65 and 68-77 based on the Vanderheiden patent, the Frushour patent and the McKiel, Jr. patent.

Claims 68-77

Regarding the Vanderheiden patent, bridging pages 11 and 12 of the final Office Action, the Examiner admits " Vanderheiden fails to teach a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position and does not expressly teach using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments.." Due to this lack of teaching, Appellants further submit that the Vanderheiden patent would not have taught or suggested at least "a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position, the sound effect having a plurality of sound segments that are each associated with the object's movement on said graphical user interface, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 68.

As variously set forth above, the Frushour patent and the McKiel, Jr. patent are relied upon by the Examiner to show features that were admitted to be lacking from the Vanderheiden patent. However, for the reasons as set forth above, the Frushour patent and the McKiel, Jr. patent, individually or in the combination with the Vanderheiden patent, would not have taught or suggested at least "a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position, the sound effect having a plurality of sound segments that are each associated with the object's movement on said graphical user interface, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 68.

For the foregoing reasons, the Examiner has not established a prima facie case of obviousness in rejecting independent claim 68, and also the dependent claims 69-77.

Claims 59, 60, 65

Claims 59, 60 and 65 depend from independent claim 57. Appellants have previously argued that the Vanderheiden patent would not have taught or suggested at least "sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 57.

As variously set forth above, the Frushour patent and the McKiel, Jr. patent are relied upon by the Examiner to show features that were admitted to be lacking from the Vanderheiden patent. However, for the reasons as set forth above, the Frushour patent and the McKiel, Jr. patent, individually or in the combination with the Vanderheiden patent, would not have taught or suggested at least "sound segments using at least one data structure which includes a variable parameter associated with

at least one of gain, delay and pitch of an identified sound to vary at least one of the sound segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope," as recited in claim 57

For the foregoing reasons, the Examiner has not established a prima facie case of obviousness in rejecting claims 59, 60 and 65 which depend from independent claim 57.

H. Claims 90, 91, 93 and 94 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,767,835 (Obbink et al.) in view of U.S. Patent 5,754,094 (Frushour)

In paragraph 14, page 14 of the final Office Action, claims 90, 91, 93 and 94 stand rejected as being unpatentable over the Obbink et al. patent in view of the Frushour patent. Appellants respectfully traverse the rejection. The Examiner has failed to establish a prima facie case of obviousness in rejecting claims 90, 91, 93 and 94 based on the Obbink et al. patent and the Frushour patent.

Appellants have set forth the argument that the Obbink et al. patent fails to either expressly or inherently disclose a number of features recited in independent claims 89 and 92. Further, the Obbink et al. patent would not have taught or suggested wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope, as recited in claims 89 and 92. Rather, the Examiner relies on the button 4 as shown in Figs 3A-F of the Obbink et al. patent and the accompanying audio associated with each button (col. 7, lines 4-15; col. 8, lines 9-20). However, the button 4 and the accompanying audio of the Obbink et al. patent does not relate to Appellants' *pitch of a reproduced sound effect being selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope, as recited in claims 89 and 92.*

The Frushour patent is relied upon by the Examiner to show features that were admitted to be lacking from the Obbink et al. patent. However, as relied upon by the Examiner, the Frushour patent merely discloses a sound generating apparatus 10 as shown in Fig. 2, and the manner in which each subset of sounds is selected and generated (col. 5, lines 45-61). The Frushour patent would not have taught or suggested Appellants' *pitch of a reproduced sound effect being selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope*, as recited in claims 89 and 92.

#### Claims 90-93

Clearly given that the Examiner's applied references would not have taught or suggested the variability of the pitch of a reproduced sound effect as governed by the recited weighted envelope, it stands to further reason that the Examiner's applied references would not have taught or suggested the specific features of "stored sound effect has at least one variable parameter, and said identified sound effect is reproduced with a predetermined value for said parameter," as recited in claims 90 and 93; and "the same stored sound effect is reproduced with different values for different respective transitions in the display state of said element," as recited in claims 91 and 94.

#### Conclusion

For the various foregoing reasons as separately argued, a reversal of the final rejections, and allowance of the present application, are therefore requested.

#### VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

#### IX. Evidence Appendix

Evidence Appendix as attached indicates: NONE.

X. Related Proceedings Appendix


Related Proceedings Appendix as attached indicates: NONE.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date December 5, 2008

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## VIII. CLAIMS APPENDIX

### The Appealed Claims

Claim 28. A computer-readable medium having at least one data structure for use during execution of a program by a computer from which a sound effect can be produced encoded thereon, said data structure comprising:

- a variable associated with gain of an identified sound;
- a variable associated with delay of the identified sound;
- a variable associated with pitch of the identified sound to vary a produced sound effect; and
- a separately recorded sound effect, wherein said recorded sound effect has at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying, at least one of which can be adjusted based on at least one of the variables associated with gain, delay or pitch of an identified sound to vary the produced sound effect, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 32. A method for providing a sound effect corresponding to movement of an object drawn on a graphical user interface of a computer system, the method comprising steps of:

- drawing said object in a first display position of a display space controlled by said graphical user interface;

receiving a first indication of movement of said object, the movement being on said graphical user interface;

retrieving a sustain sound segment in response to said first indication;

producing said sustain sound segment;

receiving a second indication that the movement of said object on said graphical user interface has terminated;

terminating said sustain sound segment in response to said second indication;

panning said sustain sound segment between speakers as said object moves;

and

wherein said step of panning said sustain sound segment between speakers further comprises a step of:

varying a volume between said speakers as compared to a recorded volume.

Claim 41. A computer system with a display and a sound effect system, said computer system comprising:

an input device for controlling movement of a cursor on said display, wherein said input device generates a cursor output in response to said cursor being positioned over a control element;

a graphical user interface for rendering an object on said display at a first display position;

a speaker for producing a sound effect associated with movement of said object;

a storage device for storing said sound effect; and



a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary the produced sound effect, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 43. A computer system with a display and a sound effect system, said computer system comprising:

an input device for controlling movement of a cursor on said display, wherein said input device generates a cursor output in response to said cursor being positioned over a control element;

a graphical user interface for rendering an object on said display at a first display position;

first and second speakers for producing a sound effect associated with movement of said object;

a storage device for storing said sound effect;

a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary the produced sound effect;

means for panning said sound effect between said first speaker and said second speaker in response to movement of the object; and

means for varying a volume between said first speaker and said second speaker as compared to a recorded volume, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 53. In a graphical user interface, a method for providing sound effects comprising the steps of:

displaying an object in a first display state, said first display state having no sound effect associated with it;

identifying a sound effect using a state table, said sound effect being associated with a transition from a first display state to a second display state;

varying an output characteristic of said sound effect using a data structure which includes a variable parameter associated with at least one of gain, delay and pitch of the identified sound effect to vary the output characteristic; and

reproducing said sound effect using said varied output characteristic, wherein the pitch of the identified sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 54. The method of claim 53, wherein said output characteristic is frequency.

Claim 55. In a graphical user interface, a method for providing sound effects comprising the steps of:

- displaying an object in a first display state;
- identifying a sound effect using a state table, said sound effect being associated with a transition from a first display state to a second display state;
- varying a frequency characteristic of said sound effect; and
- reproducing said sound effect using said varied frequency characteristic;

wherein said frequency is selected from within an envelope of about plus or minus 2.5 percent of an original, recorded frequency.

Claim 56. The method of claim 55, wherein said selection is weighted toward said original, recorded frequency.

Claim 57. A method for providing a sound effect corresponding to movement of an object drawn on a graphical user interface of a computer system, the method comprising steps of:

- drawing said object in a first display position of a display space controlled by said graphical user interface;
- receiving an indication of movement of said object, the movement being on said graphical user interface; and
- producing a plurality of sound segments resulting from the object's movement on said graphical user interface, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound

segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 58. The method of claim 57, wherein at least one of the sound segments is repeatedly reproduced.

Claim 59. The method of claim 57, further comprising a step of:  
panning at least one of the sound segments between speakers as said object moves.

Claim 60. The method of claim 59, wherein panning between speakers comprises:  
varying a volume between said speakers as compared to a recorded volume.

Claim 61. The method of claim 58, wherein repeatedly reproducing at least one of the sound segments comprises:  
reproducing the least one of the sound segments at a volume specified for movement of said object.

Claim 62. The method of claim 58, wherein repeatedly reproducing at least one of the sound segments comprises:

reproducing the least one of the sound segments at a pitch specified for movement of said object.

Claim 63. The method of claim 58, wherein repeatedly reproducing at least one of the sound segments comprises:

reproducing the least one of the sound segments after a delay specified for movement of said object.

Claim 64. The method of claim 57, wherein producing the plurality of sound segments comprises:

producing an attack sound segment at the indication of movement, and repeatedly producing a sustain sound segment until an indication of termination of movement; and

transitioning out of the sustain sound segment by producing a decay sound segment.

Claim 65. The method of claim 58, comprising:

selecting, from within a range of frequencies, a frequency for repeatedly reproducing said at least one sound segment.

Claim 66. The method of claim 65, wherein selecting a frequency comprises:

setting said range of frequencies to an envelope of about plus or minus 2.5 percent of an original frequency at which said at least one sound segment was recorded.

Claim 67. The method of claim 66, wherein selecting a frequency comprises:

weighting selection of said frequency from within said envelope.

Claim 68. A computer system with a display and a sound effect system, said computer system comprising:

an input device for controlling movement of a cursor on said display, wherein said input device generates a cursor output in response to said cursor being positioned over a control element;

a graphical user interface for rendering an object on said display at a first display position;

a speaker for producing a sound effect associated with movement of said object;

a storage device for storing said sound effect; and

a processor for controlling the speaker to produce said sound effect in response to movement of the object from the first display position, the sound effect having a plurality of sound segments that are each associated with the object's movement on said graphical user interface, the plurality of sound segments using at least one data structure which includes a variable parameter associated with at least one of gain, delay and pitch of an identified sound to vary at least one of the sound

segments, wherein the pitch of an identified sound is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 69. The computer system of claim 68, wherein said speaker is a first speaker, the computer system further comprising:

a second speaker for outputting said sound effect; and  
means for panning said sound effect between said first speaker and said second speaker in response to movement of the object.

Claim 70. The computer system of claim 69, wherein said means for panning further comprises:

means for varying a volume between said first speaker and said second speaker as compared to a recorded volume.

Claim 71. The computer system of claim 68, wherein a data structure associated with said sound effect includes a volume parameter specified for output of said sound effect.

Claim 72. The computer system of claim 68, wherein a data structure associated with said sound effect includes a pitch parameter specified for output of said sound effect.

Claim 73. The computer system of claim 68, wherein a data structure associated with said sound effect includes a volume gain parameter specified for output of said sound effect.

Claim 74. The computer system of claim 68, wherein a data structure associated with said sound effect includes an attack segment, a sustain segment and a decay segment.

Claim 75. The computer system of claim 74, further comprising:  
means for retrieving, prior to retrieving said sustain sound segment, said attack sound segment; and  
wherein said attack sound segment is reproduced prior to repeatedly reproducing said sustain sound segment.

Claim 76. The computer system of claim 75, wherein said means for retrieving further comprises:  
means for retrieving and reproducing, after said second display position is reached, said decay sound segment.

Claim 77. The computer system of claim 68, further comprising:  
means for selecting, from within a range of frequencies, a frequency for repeatedly reproducing said sound effect.



Claim 78. The computer system of claim 77, wherein said means for selecting further comprises:

means for setting said range of frequencies to an envelope of about plus or minus 2.5 percent of an original frequency at which said sound effect was recorded.

Claim 79. The computer system of claim 78, wherein said means for selecting further comprises:

means for weighting a selection of said frequency from within said envelope.

Claim 80. A computer-readable medium having at least one data structure for use during execution of a program by a computer from which a sound effect can be produced encoded thereon, said data structure comprising:

a variable associated with gain of an identified sound to vary a produced sound effect, wherein at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 81. The computer-readable medium of claim 80, wherein the data structure includes a variable parameter associated with at least one of gain and delay of an identified sound to vary the produced sound effect.

Claim 82. The computer-readable medium of claim 80, wherein the data structure includes a variable parameter associated with at least one of gain, delay, and pitch of an identified sound to vary the produced sound effect.

Claim 83. A computer-readable medium having at least one data structure for use during execution of a program by a computer from which a sound effect can be produced encoded thereon, said data structure comprising:

a variable associated with delay of an identified sound to vary a produced sound effect, wherein at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 84. The computer-readable medium of claim 83, wherein the data structure includes a variable parameter associated with at least one of gain and delay of an identified sound to vary the produced sound effect.

Claim 85. The computer-readable medium of claim 83, wherein the data structure includes a variable parameter associated with at least one of gain, delay, and pitch of an identified sound to vary the produced sound effect.

Claim 86. A computer-readable medium having at least one data structure for use during execution of a program by a computer from which a sound effect can be produced encoded thereon, said data structure comprising:

a variable associated with pitch of an identified sound to vary a produced sound effect, wherein at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying said sound effect can be adjusted based on the variable to vary the produced sound effect, wherein the pitch of said produced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 87. The computer-readable medium of claim 86, wherein the data structure includes a variable parameter associated with at least one of pitch and delay of an identified sound to vary the produced sound effect.

Claim 88. The computer-readable medium of claim 86, wherein the data structure includes a variable parameter associated with at least one of gain, delay, and pitch of an identified sound to vary the produced sound effect.

Claim 89. A method of providing user feedback in a graphical user interface for a computer, comprising the following steps:

in response to a user action that is performed with respect to an element of the graphical user interface, changing the display of said element from a first state to a second state;

identifying a stored sound effect that is associated with a transition from said first state to said second state; and

reproducing said identified sound effect in conjunction with said change in display states of said element, wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 90. The method of claim 89, wherein said stored sound effect has at least one variable parameter, and said identified sound effect is reproduced with a predetermined value for said parameter.

Claim 91. The method of claim 90, wherein the same stored sound effect is reproduced with different values for different respective transitions in the display state of said element.

Claim 92. A computer-readable medium containing programming code for providing user feedback in a graphical user interface for a computer, the computer readable medium when executed implements procedures comprising:

in response to a user action that is performed with respect to an element of the graphical user interface, changing the display of said element from a first state to a second state;

identifying a stored sound effect that is associated with a transition from said first state to said second state; and

reproducing said identified sound effect in conjunction with said change in display states of said element, wherein the pitch of said reproduced sound effect is selected from within an envelope which is weighted such that frequencies closer to an originally recorded frequency are more likely to be selected than frequencies toward the edges of the envelope.

Claim 93. The medium of claim 92, wherein said stored sound effect has at least one variable parameter, and said identified sound effect is reproduced with a predetermined value for said parameter.

Claim 94. The medium of claim 93, wherein the same stored sound effect is reproduced with different values for different respective transitions in the display state of said element.

Claim 95. The computer-readable medium of claim 28, wherein said recorded sound effect has at least one of a first sound segment for initiating said sound effect, a second sound segment which is repeatable to sustain said sound effect, and a third sound segment for decaying, each of which can be adjusted based

on at least one of the variables associated with gain, delay or pitch of an identified sound to vary the produced sound effect.

**IX. EVIDENCE APPENDIX**

NONE.

**X. RELATED PROCEEDINGS APPENDIX**

NONE.